

Investigation of crystallization kinetics and its relationship with molecular dynamics for chiral fluorinated glassforming smectogen 3F5HPhH6

Aleksandra Deptuch ^{a,*}, Małgorzata Jasiurkowska-Delaporte ^a, Wojciech Zając ^a, Ewa Juszyńska-Gałazka ^a, Anna Drzewicz ^a, Magdalena Urbańska ^b

^a H. Niewodniczański Institute of Nuclear Physics, Polish Academy of Sciences, Radzikowskiego 152, PL-31342 Kraków, Poland

^b Institute of Chemistry, Military University of Technology, Kaliskiego 2, PL-00908 Warsaw, Poland

*corresponding author, aleksandra.deptuch@ifj.edu.pl

Electronic Supplementary Information

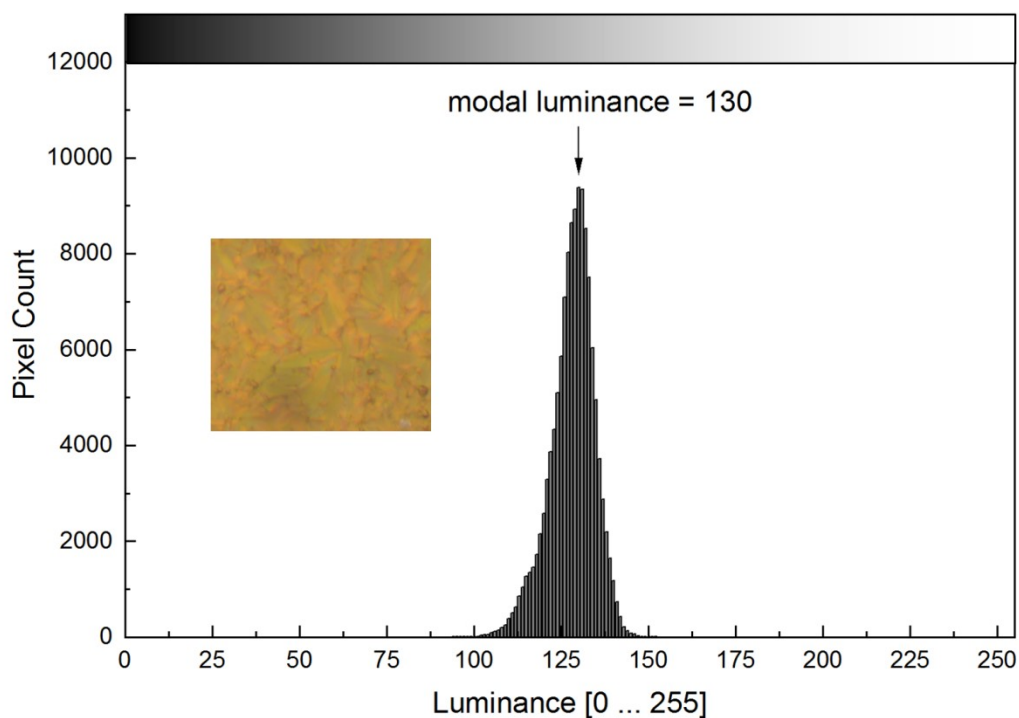
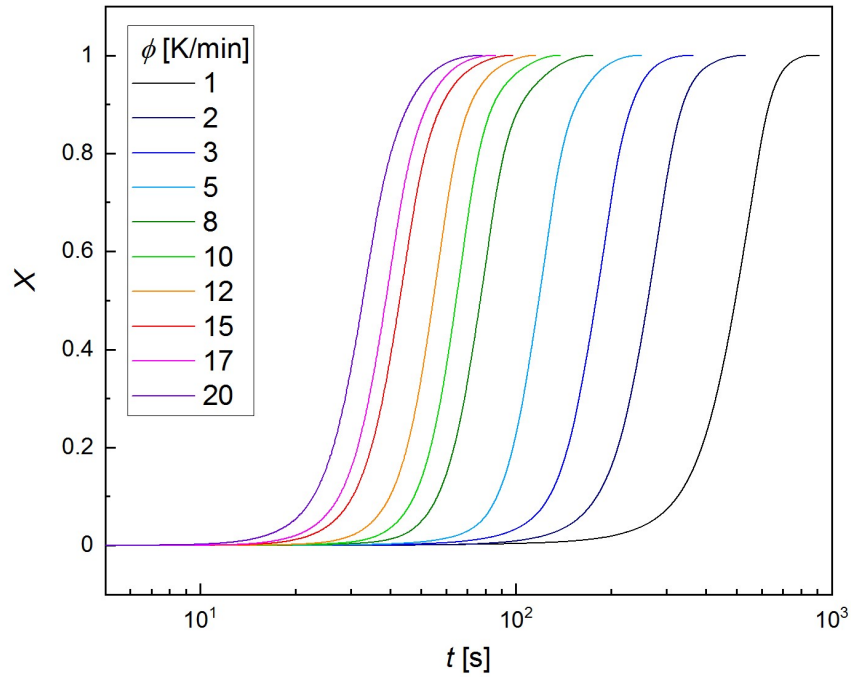
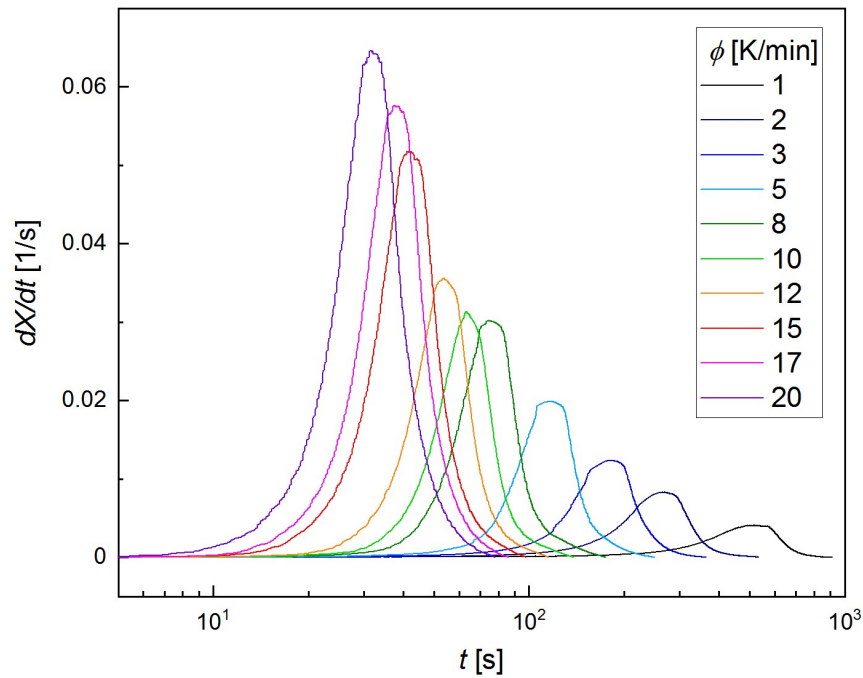


Figure S1. Histogram of the pixel luminance generated in ImageJ (C. A. Schneider et al., *Nature Methods*, 2012, **9**, 671-675) for the texture of 3F5HPhH6 collected at 193 K on cooling.



a)



b)

Figure S2. Crystallization degree X (a) and crystallization rate dX/dt (b) vs. time of the non-isothermal cold crystallization of 3F5HPhH6 for 1-20 K/min heating rates. The time is counted from the beginning of crystallization.

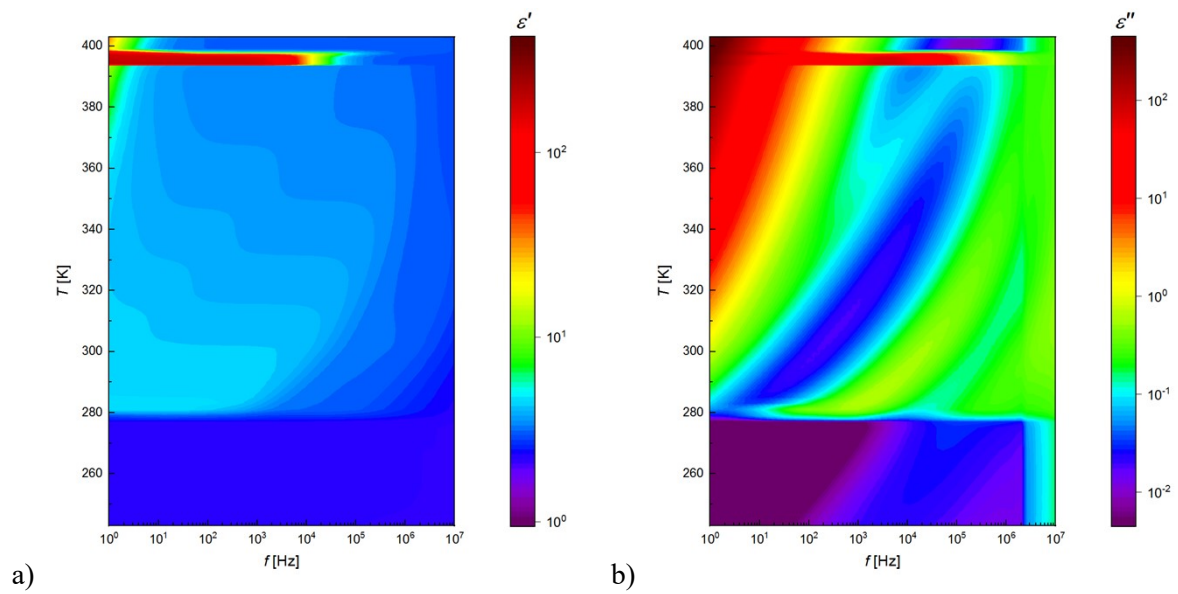


Figure S3. Dielectric spectra of 3F5HPhH6: dispersion part (a) and absorption part (b) registered on slow cooling.

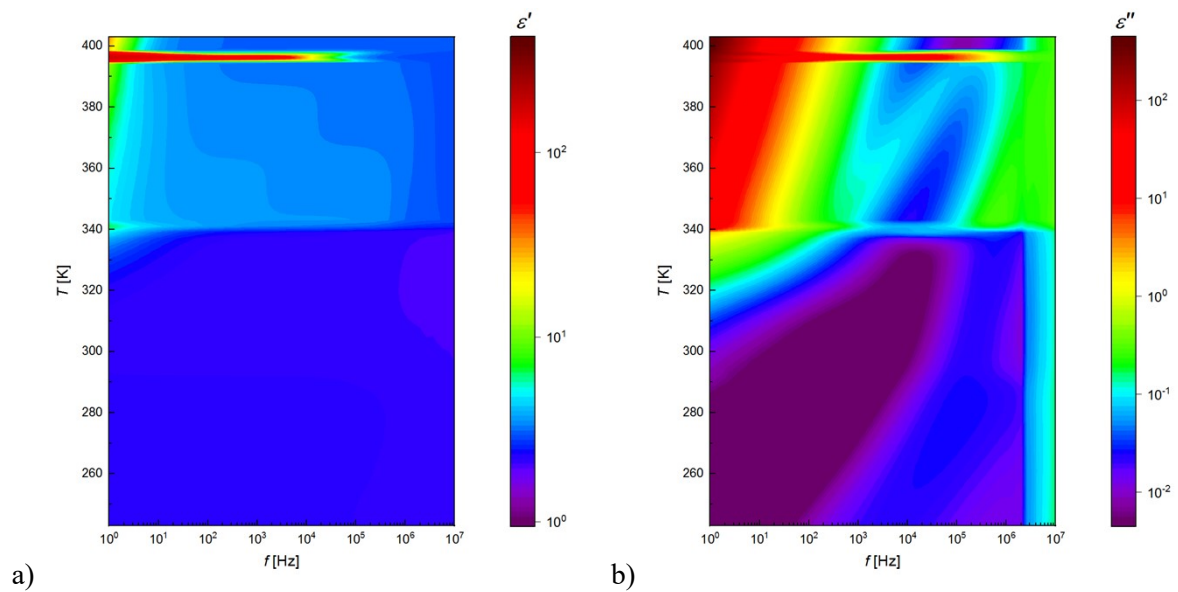


Figure S4. Dielectric spectra of 3F5HPhH6: dispersion part (a) and absorption part (b) registered on heating after slow cooling.

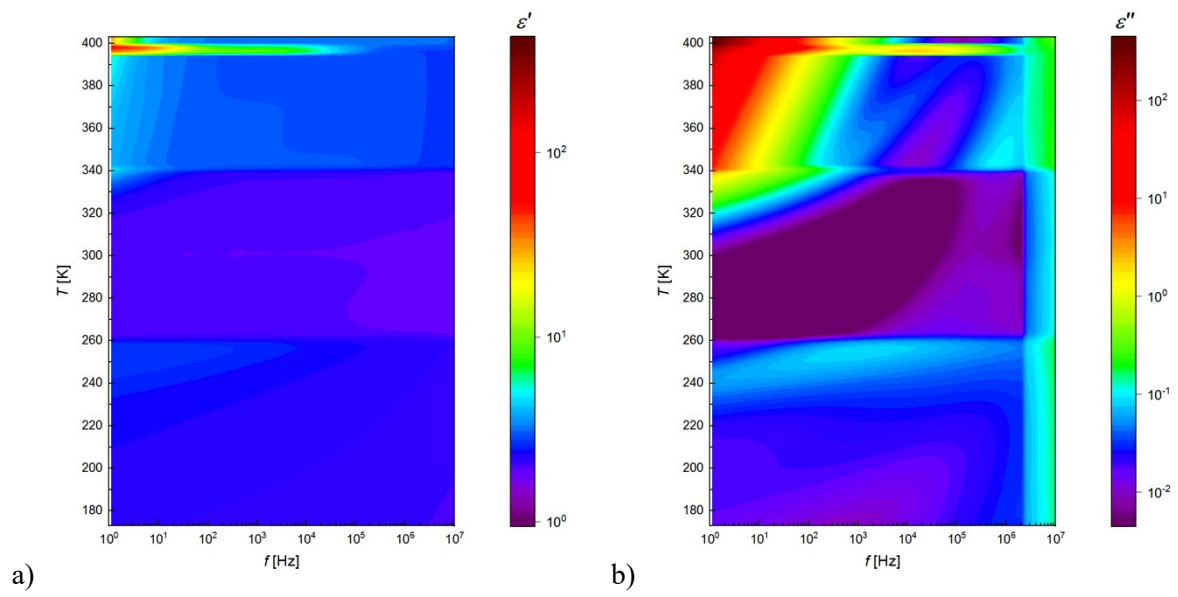


Figure S5. Dielectric spectra of 3F5HPhH6: dispersion part (a) and absorption part (b) registered on heating after fast cooling.

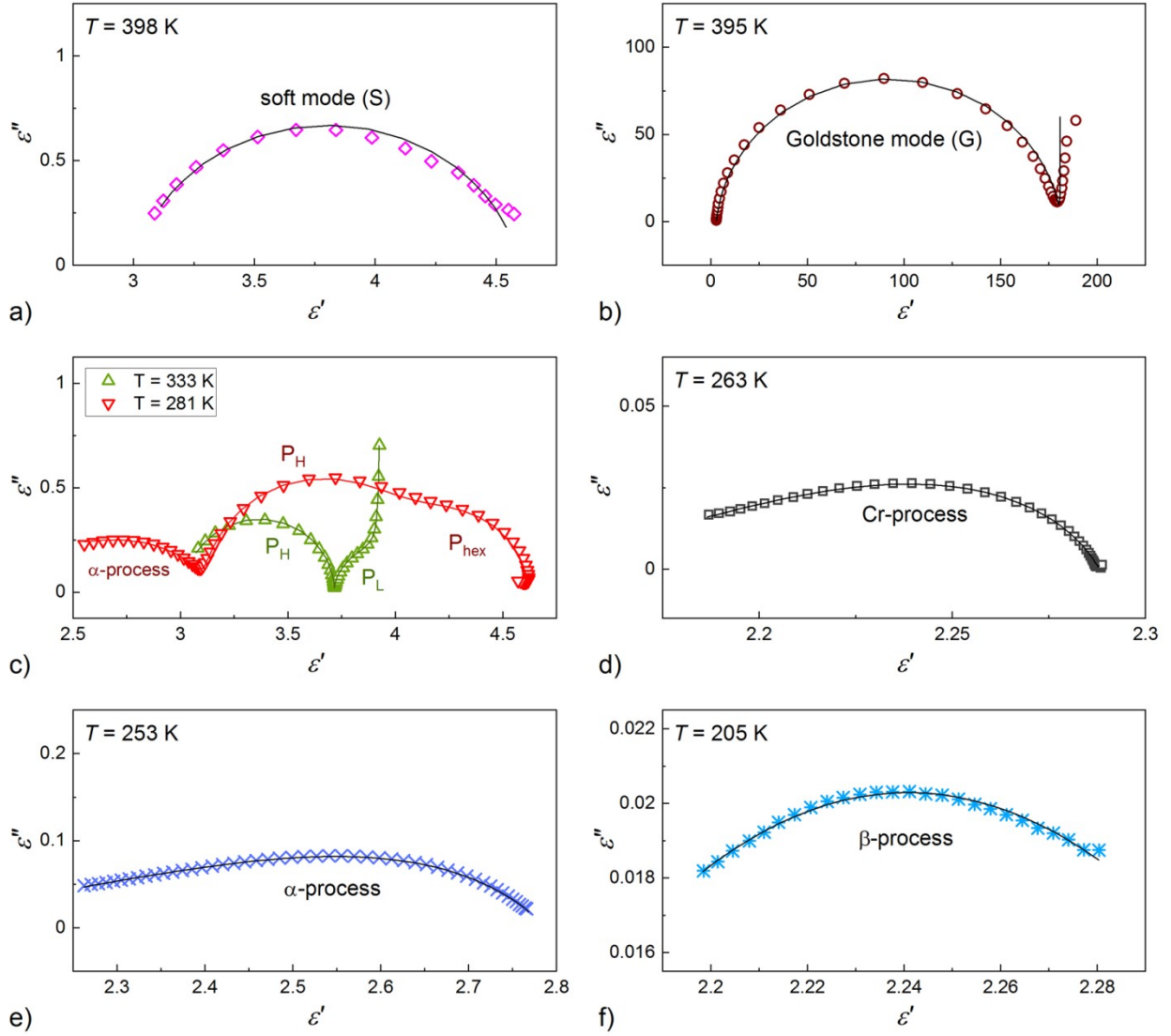


Figure S6. Cole-Cole plots for relaxation processes of 3F5HPhH6 (points) with the fitting results of Equation (7) from the main text (lines). Panels (a-d) show results obtained at slow cooling and panels (e) and (f) show data collected at heating after fast cooling of the sample. In (f), due to very wide distribution of the β -process, the vertical scale was expanded compared to the horizontal one.